

WHAT IS CLAIMED IS:

1. A method for printing a pattern on a photosensitive surface using a spatial light modulator (SLM), comprising:  
defining two or more exposure areas on the photosensitive surface, the exposure areas overlapping along respective edge portions of the exposure areas to form an overlap zone therebetween;  
exposing the two or more exposure areas to print an image therein, the exposing extending through the overlap zone; and  
attenuating the exposing within the overlap zone.
2. The method of claim 1, wherein the exposing includes applying a laser dose.
3. The method of claim 1, wherein each exposure area corresponds to one illumination source pulse.
4. The method of claim 1, wherein the attenuating step includes active attenuation.
5. The method of claim 4, wherein the active attenuation step includes dynamically adjusting pixels within the SLM to compensate for deficiencies within the image.

6. The method of claim 1, wherein the attenuating step includes passive attenuation.

7. The method of claim 6, wherein the passive attenuation step includes use of at least one from the group including apodized apertures, out of focus aperture/field stop, and pre-fabricated modification of SLM pixels.

8. The method of claim 1, wherein the attenuating step is a function of at least one from the group including illumination mode, dimensions of the overlap zone, and dimensions of the image.

9. An apparatus configured for printing a pattern on a photosensitive surface using a spatial light modulator (SLM), the apparatus comprising:

means for defining two or more exposure areas on the photosensitive surface, the exposure areas overlapping along respective edge portions of the exposure areas to form an overlap zone therebetween;

means for exposing the two or more exposure areas to print an image therein, the exposing extending through the overlap zone; and

means for attenuating the exposing within the overlap zone.

10. The apparatus of claim 9, wherein the means for exposing is configured to apply a laser dose.

11. The apparatus of claim 9, wherein each area corresponds to one illumination source pulse.

12. The apparatus of claim 9, wherein the means for attenuating is configured to perform active attenuation.

13. The apparatus of claim 9, wherein the active attenuation includes dynamically adjusting pixels within the SLM to compensate for deficiencies within the image.

14. The apparatus of claim 9, wherein the means for attenuating is configured to perform passive attenuation.

15. A computer readable medium carrying one or more sequences of one or more instructions for execution by one or more processors to perform a method for printing a pattern on a photosensitive surface using a spatial light modulator (SLM), the instructions when executed by the one or more processors, cause the one or more processors to perform the steps of:

defining two or more exposure areas on the photosensitive surface, the exposure areas overlapping along respective edge portions of the exposure

areas to form an overlap zone therebetween;

exposing the two or more exposure areas to print an image therein, the  
exposing extending through the overlap zone; and

attenuating the exposing within the overlap zone.